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REPORT TO THE CONGRESS



BY THE COMPTROLLER GENERAL
OF THE UNITED STATES

Federal Fire Safety Requirements Do Not Insure Life Safety In Nursing Home Fires

Department of Health, Education, and Welfare

Two Chicago nursing home fires killed 31 people during early 1976. GAO was asked to investigate reasons for the severity of the fires and to suggest possible actions to avoid similar situations.

GAO reported that experts said automatic sprinkler systems would have extinguished the fires and saved lives. GAO recommends that the Congress enact legislation requiring all nursing homes to be fully protected with automatic sprinkler systems.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

This report discusses Federal fire safety requirements for nursing homes participating in Medicare and Medicaid.

We made our review at the request of Claude Pepper, Chairman, Subcommittee on Health and Long-Term Care, House Select Committee on Aging. The Chairman's request was prompted by 2 nursing home fires in the Chicago area early in 1976 in which 31 patients died.

Two recommendations for legislative action are included in the report.

We are sending copies of this report to the Director, Office of Management and Budget; the Secretary of Health, Education, and Welfare; and the Secretary of the Department of Housing and Urban Development.

ACTING


Comptroller General
of the United States

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ABBREVIATIONS

GAO	General Accounting Office
HEW	Department of Health, Education, and Welfare
HUD	Department of Housing and Urban Development
ICF	intermediate care facility
SNF	skilled nursing facility
SRS	Social and Rehabilitation Service

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

FEDERAL FIRE SAFETY REQUIREMENTS DO
NOT INSURE LIFE SAFETY IN NURSING
HOME FIRES
Social and Rehabilitation Service
Department of Health, Education, and
Welfare

D I G E S T

As a result of two nursing facility fires that killed 31 people during early 1976, the Chairman, Subcommittee on Health and Long-Term Care, House Select Committee on Aging, asked GAO to investigate reasons for the severity of the fires and to suggest possible actions to avoid similar situations. (See app. I.)

According to reports of investigations:

- Multiple deaths occurred in these and several fires in prior years even though the buildings were of fire resistive construction and were in substantial compliance with the Federal fire safety requirements. (See p. 11 and app. III.)
- Deaths were caused by smoke and products of combustion rather than by flames because the flames were confined to the rooms of origin. (See p. 9.)
- Neither facility was fully protected with an automatic sprinkler system designed to activate an alarm and begin fighting the fire immediately. (See pp. 5, 6, and 7.)
- Although local fire departments responded promptly to both alarms, the fire departments were unable to prevent the deaths which occurred. (See pp. 6, 7, and 8.)
- Facility employees tried to evacuate residents and extinguish the fires, but in neither case were they successful in preventing death or extinguishing the fires. (See pp. 6 and 8.)
- Although a short period of time elapsed from the identification of the fires to

the arrival of the fire departments, the fires generated intense heat, resulting in considerable fire damage to the rooms in which the fires originated. (See pp. 7 and 9.)

--Experts said automatic sprinklers would have prevented the deaths in these homes. (See p. 12.)

Studies by congressional committees, a fire safety engineering firm, a special investigative committee, and others have pointed out the need for and the benefits of automatic sprinkler systems in nursing facilities. (See pp. 12, 15, 16, and 18.)

GAO determined that the cost of sprinkler system installations ranged from \$393 to \$625 a bed. The amortized cost of \$625 over a 20-year period with a 9-1/4 percent interest rate is \$5.57 a bed each month, or about 19¢ a bed each day. (See pp. 19 and 20.)

With the installation of a sprinkler system, savings on nursing facility fire insurance premiums are possible on both the building and its contents. Through reimbursement for depreciation and interest, Medicare and Medicaid will pay for part of the cost of sprinkler system installation. (See pp. 20, 21, and 22.)

The program which authorized the Department of Housing and Urban Development to provide Federal loan insurance for the installation of fire safety equipment has not been utilized. GAO believes that excessive processing time by HEW and the Department of Housing and Urban Development procedures, which prohibit loan insurance after work has begun, contribute to the problems facing nursing facilities applying for loan insurance. (See pp. 25 and 26.)

GAO recommends that the Secretary of HEW minimize the problem of excessive processing time by establishing procedures which make better use of existing survey and certification documents. (See p. 32.)

GAO recommends that the Secretary of Housing and Urban Development

- establish regulations to permit fire safety equipment loan insurance after work has begun (see p. 33) and
- publicize the availability of the fire safety equipment loan insurance program by revising the nursing home brochure dealing with nursing home mortgage insurance (see p. 33).

Because congressional hearings were scheduled, the chairman's office requested that GAO not delay the report to get formal comments from HEW and the Department of Housing and Urban Development. Informal comments from agency officials were considered where appropriate in this report. The National Fire Protection Association and the National Fire Prevention and Control Administration of the Department of Commerce agreed with GAO's recommendations to the Congress. (See apps. VI and VII.)

RECOMMENDATIONS TO THE CONGRESS

GAO believes that a strong case can be made for requiring that all nursing facilities be fully protected with automatic sprinkler systems. Therefore, in line with previous recommendations of congressional committees, we recommend that the Congress enact legislation which will require that all nursing facilities be fully protected with an automatic sprinkler system. The Congress should require HEW to establish rigid standards which must be met by nursing facilities requesting waiver from the automatic sprinkler requirement. (See pp. 22 and 23.)

CHAPTER 1

INTRODUCTION

In January 1976 a Chicago nursing home fire killed 23 people. Within a week, another nursing home fire just outside Chicago claimed the lives of eight people.

In his letter of February 20, 1976, the Chairman, Subcommittee on Health and Long-Term Care, House Select Committee on Aging, asked us to investigate reasons for the severity of the fires and to suggest possible actions to avoid similar situations. He also asked us to investigate:

- The fires and determine if automatic sprinkler systems would have put out the fires or lessened their severity in these facilities.
- The facilities in Chicago and determine if they met the Life Safety Code requirements for participation in federally financed health programs.
- The Department of Health, Education, and Welfare's (HEW's) enforcement of fire safety standards in Chicago and elsewhere.
- The State inspections of the Chicago facilities in question and HEW's validation of those inspections.
- The State inspection procedures including the qualifications of the inspectors.
- The quality of trained personnel assisting patients during the fires.
- The implementation of Public Law 93-204, approved December 28, 1973, which authorized federally insured loans to provide fire safety equipment for nursing homes and intermediate care facilities.

NURSING HOMES IN FEDERAL PROGRAMS

There are about 16,500 nursing homes, referred to as skilled nursing facilities (SNFs) or intermediate care facilities (ICFs), depending on the level of care provided, participating in the Medicare and Medicaid programs.

Medicaid--authorized by title XIX of the Social Security Act, as amended--is a grant-in-aid program in which the Federal Government pays part of the costs (50 to 78 percent) incurred by States in providing medical services to persons

who are unable to pay. At the Federal level the Medicaid program is administered by the Social and Rehabilitation Service (SRS) within HEW.

States have the primary responsibility for initiating and administering their Medicaid program under the Social Security Act. The act requires that State Medicaid programs provide SNF services. However, services in ICFs which provide care to patients that do not require skilled nursing services are an optional Medicaid service.

Medicare, authorized by title XVIII of the Social Security Act, is the Federal health insurance program for the aged and disabled. Part A of Medicare provides hospital insurance and also pays for all covered services in a SNF for the first 20 days after a hospital stay and all but a certain amount a day, up to 80 additional days, during a benefit period. ICFs do not participate in Medicare.

About 7,500 SNFs are participating in Medicaid, about 4,300 of which also participate in Medicare. In addition, about 9,000 ICFs participate in Medicaid. During fiscal year 1975, Federal and State Medicaid payments for SNF and ICF services were \$4.6 billion, and Medicare payments for SNF services were \$257 million.

CERTIFICATION PROCEDURES

Standards have been established by law and regulation which must be met by all nursing facilities participating in Medicare or Medicaid. The Federal requirements on fire safety have incorporated the Life Safety Code, established by the National Fire Protection Association.

HEW regulations require that each nursing facility certified for Medicare or Medicaid be inspected at least annually by State inspectors (employed by State agencies having contracts with the Federal Government) to determine whether the facility is in compliance with Federal requirements, including the Life Safety Code. Facilities not in full compliance with the fire safety standards may be certified for limited periods under both programs while corrections are being made.

Current HEW regulations for both Medicare and Medicaid provide for canceling a nursing facility's certification if deficiencies noted during the inspections have not been corrected within a specified time, including approved extensions.

THE LIFE SAFETY CODE

The Life Safety Code is established by the National Fire Protection Association. The primary function of the Association's Committee on Safety to Life has been to study and analyze the causes of fires involving loss of life. The code, which is based on established standards for various types of construction, is revised periodically. The latest edition was published in 1973.

The Social Security Amendments of 1967, effective January 1, 1970, require SNFs to comply with the 1967 edition of the Life Safety Code to participate in Medicaid. In October 1971 HEW extended that requirement to Medicare SNFs. Public Law 92-603, enacted October 30, 1972, incorporated in titles XVIII and XIX of the Social Security Act the requirement that Medicare and Medicaid SNFs comply with the 1967 Life Safety Code. Federal regulations requiring ICFs to meet this code became effective March 18, 1974. Nursing facilities entering the program on or after June 1, 1976, are required to meet the 1973 edition of the code, as provided in Public Law 94-182, enacted December 31, 1975.

The code requires automatic sprinkler protection throughout all nursing facilities, except those of 2-hour ^{1/} fire resistive construction or one story, 1-hour protected noncombustible construction. The fire resistance rating of building construction varies with the susceptibility to fire damage of the building materials used and the degree of fire protection provided for the structural members.

A building classified as 2-hour fire resistive construction is one in which the structural members, including walls, partitions, columns, floors, and roofs, are of materials having fire resistance ratings ranging from 1-1/2 to 4 hours as required by the National Fire Protection Association standards.

A building may be classified as 1-hour protected noncombustible if it is constructed of materials having a minimum fire resistance rating ranging from 1 to 2 hours.

^{1/}The National Fire Protection Association defines the ratings of building materials in terms of hours. The ratings are the result of standard fire tests in which the materials are subjected to controlled fire conditions. The performance is based on the length of time the materials maintain their structural integrity and expressed as 2-hour, 6-hour, 1/2-hour, etc.

The requirements for these two classifications are directed toward limiting the spread of fire and maintaining the building structure to permit adequate time to safely evacuate nursing home patients.

The Social Security Amendments of 1967 permit a waiver, in accordance with regulations established by the Secretary of HEW, of specific Life Safety Code provisions, including the automatic sprinkler requirement. A waiver may be issued for specific Life Safety Code provisions which, if rigidly applied, would result in unreasonable hardship on a nursing home. Such a waiver, however, will be granted only if it will not adversely affect the health and safety of the patients.

SNF waivers under Medicare have always been issued by HEW. Initially, waivers of the Life Safety Code standards for Medicaid facilities were issued by State Medicaid agencies in accordance with HEW criteria. The Social Security Amendments of 1972, however, transferred this authority to HEW.

Under current procedures the States make recommendations for both Medicare and Medicaid SNF waivers relating to fire safety standards, but HEW regional directors make the final decisions. Waivers of Life Safety Code standards are issued by State agencies for ICFs.

Federal loan insurance for nursing home fire safety equipment

The Congress enacted Public Law 93-204 on December 28, 1973, which authorized the Secretary of the Department of Housing and Urban Development (HUD) to insure loans made to nursing facilities for purchasing and installing fire safety equipment, including automatic sprinkler systems.

SCOPE OF REVIEW

Our review included work at the regional offices of HEW and HUD in Chicago, Illinois; the Illinois State Fire Marshal's office; and the Illinois State Medicaid Agency. Work was also done at HEW and HUD headquarters in Washington, D.C.

In addition to the two nursing home fires in the Chicago area, we obtained information on other nursing home fires for comparison. We also obtained information from various other studies and reports on nursing home fires and fire safety.

CHAPTER 2
NURSING FACILITY FIRES

IN CHICAGO

On January 30, 1976, and February 4, 1976, fires occurred at the Wincrest and Cermak nursing facilities, respectively, which resulted in the deaths of 31 patients. Both institutions were intermediate care facilities participating in Medicaid. According to reports of investigations, these deaths occurred even though

- the nursing facilities substantially met Federal fire safety requirements,
- the fire departments responded promptly to the alarms, and
- the construction of the buildings adequately confined the flames to the rooms of origin.

The deaths were reported to be caused by smoke and toxic gases rather than by flames. No fatalities occurred in the rooms of fire origin. Investigators of these fires stated that sprinkler systems would have prevented deaths in these nursing facilities; however, both facilities were classified as fire resistive and, under the Life Safety Code, were exempt from the automatic sprinkler requirement.

WINCREST

The Wincrest Nursing Home fire occurred on the third floor of the facility during the morning of January 30, 1976. (See app. IV.) Wincrest, an ICF in Chicago, has 28 sleeping rooms which can accommodate 88 permanent residents. The residents included Medicaid patients.

At the time of the fire, Wincrest had the following fire safety devices (see app. IV):

- Three alarm systems: (1) pull box, (2) heat detectors (both of which activate alarms to the Chicago Fire Department and to the nursing home staff) and (3) smoke detectors which activate an alarm only to the nursing home staff. The three alarm systems were activated at approximately the same time.
- Three portable fire extinguishers.

--A public address system.

--A battery-operated emergency lighting system (not a significant factor because the fire occurred during daylight hours). The system reportedly would not have functioned properly because smoke residue covered and the heat had melted the plastic hoods on the lights.

--Solid core doors to residents' rooms--authorities considered these adequate to stop the fire, heat, and smoke if the doors were closed.

--Fire resistive floors, walls, and ceilings. These were not penetrated by the fire, although the wall coverings did burn.

At the time of the fire, 83 aged residents (many confined to wheelchairs) occupied the home. When the fire occurred, five nursing home attendants, a priest, and 40 residents were on the third floor of the home. Approximately 28 of the 40 residents were attending a religious service in the third floor lounge-chapel. The lounge-chapel did not have a door and was open to the corridor. (See app. IV.)

A nurse's aid discovered the fire in room 306, at the approximate center of the single corridor which serves the third floor (see app. IV), at about 11:40 a.m., summoned the priest, and activated a pull-box fire alarm. Initially the priest, and later two maintenance men and an administrator, attempted to put out the fire with fire extinguishers but could not contain the fire. Intense smoke and heat forced them to abandon the room after attempting to close the door to the corridor. The attendants and others began concentrating on evacuating residents from the lounge-chapel and the third floor.

The Chicago Fire Department arrived at about 11:46 a.m., approximately 3 minutes and 40 seconds after it received the alarm. In response to the first alarm, the fire department dispatched 39 firemen with 7 trucks (4 pumpers, 2 hook and ladders, and 1 snorkel). Upon arrival of the fire department, intense smoke on the third floor was already affecting elderly residents (some residents were gasping or unconscious). In response to a special call, 18 more firemen arrived at 12:01 p.m. with special equipment including another snorkel truck. In response to a second alarm, 44 firemen arrived at 12:04 p.m. with 1 helicopter, 1 communication van, and 8 trucks (4 pumpers, 2 hook and ladders, and 2 water cannon turrets).

In response to special calls, the fire and police departments and private organizations dispatched 10 ambulances to the home. The ambulances and four fire department automobiles transported the injured to hospitals.

As of February 20, 1976, 23 nursing home residents had died from smoke inhalation. The majority of which were in the lounge-chapel area at the time of the fire.

The fire destroyed room 306 and caused significant damage in the corridor. Moderate fire and intense smoke and heat damaged the corridor, the lounge-chapel (which did not have doors) and sleeping rooms in which the doors were open during the fire. Sleeping rooms in which the doors were closed during the fire did not incur smoke or heat damage.

CERMAK HOUSE

The Cermak House Nursing Home fire occurred in room 421 on the fourth floor early in the morning of February 4, 1976. (See app. V.) Cermak House is an ICF in Cicero, Illinois, adjacent to Chicago, and can accommodate 618 residents. The residents included Medicaid patients.

At the time of the fire, Cermak House had fire safety devices which included (see app. V):

- Two alarm systems: (1) pull-box and (2) smoke detectors (both of which were wired to activate alarms to the Cicero Fire Department). The smoke detectors automatically closed hall smoke doors.
- Fire extinguishers and fire hoses on each floor. Because of operator error, the fire hose on the fourth floor did not operate.
- A public address system which was used to notify nursing home staff of the fire and its location.
- Solid core doors to residents' rooms--authorities considered these adequate to stop the fire, heat, and smoke if the doors were closed.
- A sprinkler system on the first floor, with vertical pipes to the other eight floors. According to a Cermak House official, horizontal pipes and sprinkler heads of the upper floors had not been installed because of financial consideration.

According to a patient census the previous night, 460 persons occupied the nursing facility; 24 persons could have been accommodated in the fourth floor west wing in which room 421 was located.

At about 6:30 a.m. a nurse and a nurse's aide heard screams and discovered the fire in room 421. While the aide activated the pull-box alarm, the nurse evacuated two of the residents from the room. The third occupant was not in the room at the time of the fire. A security guard who responded to the alarm attempted to extinguish the fire--first with a fire extinguisher and second with a hose which he did not operate properly--but abandoned the attempt when he was overcome by smoke. Two maintenance employees directed water on the fire from a hose operated through a fifth floor window but they could not extinguish the blaze.

The Cicero Fire Department arrived promptly at 6:44 a.m. to the alarm activated by smoke detectors on the fourth floor.

The smoke detectors automatically closed smoke doors at the entrance to the corridor and contained the heat and smoke in the west wing of the nursing home. Although room 421 was adjacent to the smoke doors, residents did not sustain injuries nor did damage occur outside the smoke barrier on the west wing. Eight residents died from smoke inhalation in west wing sleeping rooms where doors to the rooms were open at the time of the fire. Smoke and heat damage also occurred in these rooms and in the corridor. In another west wing sleeping room where the door was closed during the fire, residents did not sustain injuries and little property was damaged.

Officials of the Illinois Fire Marshal's office initially attributed the fire to a faulty electric cord on a nightstand lamp and, at the time of our fieldwork, were continuing to investigate other possible causes.

SEVERITY OF THE FIRES

An official of the Illinois Fire Marshal's office attributed the severity of the fires at Wincrest and Cermak to (1) steadily burning fires, (2) combustion of gases trapped by the upper walls and ceilings in the fire rooms (flashovers), and (3) ejection of flames and lethal smoke from burning plastic and vinyl in the rooms where the fires originated.

At both Wincrest and Cermak, steadily burning fires in freestanding wood wardrobes generated intense heat, resulting in considerable fire damage to the rooms in which the

fires originated. Heavy smoke damaged the corridors, lounge-chapel at Wincrest, and resident rooms with open doors.

At Wincrest most of the fatalities occurred in the lounge-chapel area which did not have a door and into which lethal smoke traveled. The lounge-chapel was not damaged by flames; however, the plastic covers on the ceiling light fixtures were melted by heat.

At Cermak, the fatalities and damage occurred in resident rooms with doors open to the corridor.

The fires at both facilities burned material which generated toxic smoke. At Wincrest, the fire burned vinyl chloride wall and mattress covers. Combustion of vinyl covers generated hydrogen chloride gas, which sears lung tissue. At Cermak, the fire burned polyurethane foam (foam rubber) mattresses. Combustion of foam rubber generates hydrogen cyanide gas. According to experts of the National Fire Prevention and Control Administration of the Department of Commerce, all common combustible materials can generate lethal quantities of carbon monoxide when subjected to fire. Medical evidence was not available to us which could identify the specific products of combustion that were primarily responsible for the deaths.

According to a study made by a nursing home association and an engineering firm under contract to the Department of Health, Education, and Welfare, wood wardrobe fires in simulated nursing facility rooms can cause flashovers within 5 minutes after ignition. The nursing home association and engineering firm based this conclusion on an experiment which they conducted for HEW to test the 1967 Life Safety Code.

COMPLIANCE WITH FIRE SAFETY STANDARDS

In Illinois, the State Fire Marshal's office surveys skilled nursing facilities and the Department of Public Health surveys ICFs for fire safety.

The Illinois Fire Marshal's office has a staff of 44 inspectors to survey SNFs. The inspectors have fire-related backgrounds, such as work experience as firemen or a degree in fire technology. New inspectors receive classroom and on-the-job training, including training in the Life Safety Code, before making inspections. All inspectors receive fire safety training each month.

Inspectors normally spend 1 to 1-1/2 days annually inspecting SNFs for compliance with the Life Safety Code and

State laws. Inspectors followup on deficiencies at 30-day intervals until they have been corrected.

The Illinois Department of Public Health inspectors make annual health and safety surveys of ICFs. The Department's architectural section has 14 registered architects and 2 engineers who make fire safety surveys. The Department trains its inspectors, using the Life Safety Code, and gives them on-the-job training before placing them in charge of inspections.

While we did not evaluate the quality of the State inspections or the adequacy of training provided to inspectors, we believe that these areas are critical in the enforcement of fire safety requirements in nursing homes, as pointed out in our report, "Many Medicare and Medicaid Nursing Homes Do Not Meet Federal Fire Safety Requirements," MWD-75-46, dated March 18, 1975.

Inspectors usually inspect a facility in 1 day and re-visit facilities within a specified period to verify correction of serious deficiencies. Inspectors followup on minor deficiencies by correspondence or during the next annual inspection.

The HEW regional office conducts validation reviews, which are surveys of facilities to insure the adequacy of the State inspections. These validation reviews are made in facilities selected at random. The HEW regional office has one team which surveys, on a random basis, selected facilities from the 3,600 SNFs and ICFs in the region.

The regional office team did not survey either Wincrest or Cermak House because neither home had been included in the survey sample.

In addition, the City of Chicago makes fire safety inspections of SNFs and ICFs. The Chicago Fire Department, Bureau of Fire Prevention, is responsible for inspecting the 129 SNFs, ICFs (including Wincrest), and other types of nursing homes in Chicago. The department uses the Chicago Municipal Code for fire prevention rather than the Life Safety Code. Within the Bureau a specially trained department captain and 11 lieutenants are responsible for inspecting institutional facilities, such as hospitals and nursing homes. The fire department requires lieutenants who are assigned to the Bureau of Fire Prevention to attend a fire safety course at the Chicago Fire Academy.

The results of recent State inspections at Wincrest and Cermak House indicated that both facilities were in substantial compliance with existing fire safety standards.

Wincrest

The Illinois Department of Public Health noted two deficiencies at the Wincrest ICF in its December 1974 fire safety survey. According to Department documents, Wincrest corrected both of the deficiencies in April 1975. Department officials told us in February 1976 that Wincrest had substantially complied with the Life Safety Code at the time of the fire.

The Chicago Fire Department's Bureau of Fire Prevention inspected Wincrest six times in 1975, noted two deficiencies which were corrected in October 1975, and did not note any further fire safety violations in the October, November, and December inspections. According to Bureau officials, Wincrest had no known deficiencies at the time of the fire. The Mayor of Chicago's special investigation committee concluded that Wincrest had complied with existing regulations.

Nurses, nurse's aides, the administrator, two maintenance men, and a priest assisted Wincrest residents during the fire. According to an Illinois Department of Public Health report, Wincrest holds a minimum of 12 fire drills annually, including simulated fire conditions and transmission of fire alarms. According to Chicago Fire Department officials, Wincrest employees responded properly to a simulated fire emergency situation during the December 1975 inspection.

Cermak House

The Illinois Department of Public Health noted 10 deficiencies at Cermak House in its December 1975 fire safety survey. On February 7, 1976, 3 days after the fire, the Illinois Fire Marshal officials, in a special investigation of Cermak House, noted 5 deficiencies under the Life Safety Code and 27 conditions which needed to be corrected under Illinois rules and regulations.

According to Illinois Department of Public Health and Fire Marshal officials, the deficiencies noted in the inspections before and after the fire did not contribute to the ignition or the severity of the fire.

A nurse and nurse's aide, two maintenance men and others assisted residents during the fire.

According to the Illinois Department of Public Health and the Fire Marshal's surveys, Cermak House holds a minimum of 12 fire drills annually, including simulations of emergency fire conditions and transmission of fire alarms.

INVESTIGATION FINDINGS ON
SPRINKLER SYSTEMS AND OTHER
FIRE SAFETY MEASURES

Sprinkler systems

According to officials of the Illinois Fire Marshal's office, sprinkler systems prevent flashovers because they prevent the accumulation of excessive heat on the upper walls and ceiling. In the opinion of Chicago Fire Department officials, sprinkler systems provide the best fire protection because they signal the fire location and immediately spray 22 gallons of water a minute on fires which activate the system. Fire department officials believe sprinkler systems would have extinguished the fires at Wincrest and Cermak and prevented deaths.

After its investigation of the Wincrest fire, a special panel appointed by the Mayor of Chicago recommended that new requirements immediately be made part of the Building and Fire Ordinance of the City. One requirement was that sprinkler systems be installed in all new and existing nursing homes and be electrically interconnected with the fire alarm system.

On February 4, 1976, the Mayor of Chicago asked the City Council to require all nursing homes to have automatic sprinkler systems. The ordinance was introduced only a few hours after the Cermak fire. On April 7, 1976, this ordinance was approved by the City Council. It requires all Chicago nursing homes to install sprinkler systems by February 1977.

According to an HEW engineer's report on the Wincrest fire, "the only alternative to a well trained staff is a complete sprinkler system, smoke compartments, and smoke detectors." Of the two Chicago area fires, another HEW report stated:

"The facilities in each case were of fire resistive construction, but failed to provide reasonable protection. There is a need for several fire safety measures which exceed current regulations."

Furnishings

According to a report by an official of the Illinois Fire Marshal's office which was presented at hearings in Illinois, "the Wincrest and Cermak House fires demonstrate that ignition of coverings and furnishings can turn nursing facilities into gas chambers." Other Illinois officials indicated that Federal standards are needed to regulate furnishings used in nursing facilities.

Fire emergency training

Illinois and local (Chicago) municipal officials emphasized the importance of fire emergency training of nursing facility employees. The committee, appointed by the Mayor of Chicago, recommended that nursing facility employees, in addition to existing training programs, be required to participate in formal fire department emergency training every 6 months.

CONCLUSIONS

- Both nursing homes substantially met the Federal fire safety requirements and were classified as fire resistant, but people still died as a result of the fires.
- The building construction adequately confined the flames to the rooms of origin.
- The deaths were caused by smoke and other products of combustion rather than flames.
- The fire departments, which responded promptly to the alarms, were unable to prevent the nursing home deaths.
- Efforts by nursing home staffs to extinguish the fires and prevent the loss of lives were unsuccessful.
- The fires created a lethal environment in a very short time.
- Experts investigating the tragedies said that automatic sprinkler systems would have saved lives in these fires.

CHAPTER 3

AUTOMATIC SPRINKLER SYSTEMS PUT OUT

FIRES AND SAVE LIVES

Many studies and reports have concluded that automatic sprinkler systems are effective in putting out fires and saving lives. About one-half of the nursing homes participating in Medicare and Medicaid are not required, because of construction classification, to be protected with automatic sprinkler systems. Historically, nursing home fires resulting in multiple deaths have had two conditions similar to the Wincrest and Cermak House fires--the primary causes of death were smoke and other gaseous products of combustion, and the facilities did not have complete automatic sprinkler systems. Since 1972 several congressional committee reports have recommended that all nursing facilities be fully protected with automatic sprinkler systems. We believe that a strong case can be made for adopting such a proposal.

The cost of installing automatic sprinkler systems will vary with factors such as building size, type of construction, method of installation, and whether installation is in existing buildings or those under construction. In several installations during 1975, the cost ranged from \$393 to \$625 a bed. The monthly cost of amortizing \$625 a bed over a 20-year period at a 9-1/4 percent interest rate is \$5.57 a bed each month, or about 19¢ a bed each day.

By installing an automatic sprinkler system, some savings are possible on fire insurance for both the building and its contents. In the Washington, D.C., area, estimates on these savings are up to 30 percent on building coverage and 50 percent on contents insurance, depending on type of construction. In addition, Medicare and Medicaid will bear a share of the cost of sprinkler systems through payments on behalf of program beneficiaries.

CURRENT FEDERAL STANDARDS AND AUTOMATIC SPRINKLERS

The Life Safety Code requires, with some exceptions, that all nursing facilities be fully protected by automatic sprinkler systems. Those nursing facilities classified as 2-hour fire resistive construction or one-story, 1-hour protected noncombustible construction are exempt of the sprinkler requirements. As a result, only about half of the nursing facilities are required by the Life Safety Code to have automatic sprinklers. As pointed out in the previous chapter, both the Wincrest and Cermak House nursing facilities

were classified as having fire resistive construction and, therefore, were exempt from the automatic sprinkler requirements.

As of March 1976, the Department of Health, Education, and Welfare estimated that of the 16,500 nursing facilities participating in either Medicare or Medicaid, about 8,580 were not required to be fully protected with automatic sprinkler systems because of their construction classification, although some facilities might have installed them.

In addition to the exemptions, HEW also has the authority under the Social Security Act to waive the automatic sprinkler requirement in any nursing facility regardless of construction type.

The Office of Nursing Home Affairs could not tell us how many facilities were waived from the automatic sprinkler requirement as of April 1976 because information on such waivers is maintained at the regional offices.

Our report entitled "Many Medicare and Medicaid Nursing Homes Do Not Meet Federal Fire Safety Requirements," (MWD-75-46) dated March 18, 1975, pointed out many problems associated with the waiver procedures. We reported that, of our sample of nursing homes inspected, over 79 percent of the nursing homes granted waivers from the automatic sprinkler requirement did not meet the HEW standards for such a waiver.

We reported that the HEW waiver standards, designed to insure a level of safety equivalent to that provided by automatic sprinklers, have not been established for any type of nursing home, except those of one-story protected wood frame construction. We recommended that HEW establish waiver standards for all types of nursing homes to insure, as required by the Social Security Act, that waivers from the automatic sprinkler requirement would not adversely affect patient safety. HEW did not accept this recommendation on the basis that the propriety of a waiver should be left to the discretion of the State with the approval of the HEW regional office.

STUDIES AND COMMENTS ON THE VALUE OF SPRINKLERS

The National Safety Council and American Nursing Home Association's "Safety Manual for Nursing Homes and Homes for the Aged" states that:

"Automatic sprinkler systems provide the greatest 'safety to life' feature available in the fire protection field. Not only can they

automatically sound an alarm, but they will immediately start fighting the fire when activated. Automatic sprinklers are by far the most reliable and effective means of fire extinguishment. Other forms of protective equipment, as well as automatic alarms, have their special place, but none can ever be an effective substitute for automatic sprinkler systems."

According to the National Fire Protection Association, there is no record of a multiple death fire in any nursing home fully protected with an automatic sprinkler system.

During the summer of 1974, the American Health Care Association (formerly the American Nursing Home Association), under contract to HEW, made a series of monitored fire tests, some of which were carried out in an abandoned nursing home near Gary, Indiana. The tests were conducted by a fire safety engineering firm. The purpose of the contract, according to an HEW official, was to validate specific fire protection requirements contained in the 1967 edition of the Life Safety Code applicable to nursing homes.

According to an HEW official, the tests were also intended to provide the basis for policy modifications regarding fire safety standards, for making recommendations for action by HEW, and for suggesting legislative amendments.

During one of the fire tests, with fire department personnel stationed throughout the building, a fire started in a wooden wardrobe burned out of control and destroyed the building. According to the project engineer for the fire safety engineering firm, as the fire developed it traveled into the concealed spaces near the roof, and the fire department could not contain it. It gradually spread through the concealed spaces, then down to the second floor, and eventually worked its way completely through the building. The engineer pointed out that fire in concealed spaces can be very difficult to reach. He said buildings have been lost this way many times throughout the country.

The HEW officials noted that automatic fire sprinklers were not in use for the specific test which resulted in destroying the building. The project engineer pointed out a number of conclusions from the various tests, including:

--Smoke barrier doors were effective.

--Many of the ordinary doors, such as might be found in typical nursing homes, do a good job of containing fires for a short time.

--Automatic sprinklers generally did a good job of controlling and containing the fires. Even where it was arranged so the water from sprinklers could not hit the fires directly, the sprinklers still contained them.

--The fires did not last long enough to be affected even by combustible wall paneling and ceiling tiles when automatic sprinklers were used.

Fire in another Illinois nursing home
with sprinklers did not result in deaths

The Plaza Nursing Home fire occurred on February 18, 1976. The Plaza Nursing Home, a skilled nursing facility in Niles, Illinois, can accommodate 300 residents. At the time of the fire, 224 residents, including both Medicare and Medicaid patients, occupied the home.

A nurse's aide noted smoke and a burning mattress in room 421 (no one was in the bed) and, with a nurse's assistance, evacuated the three occupants of the room. The nurse activated a pull-box alarm and closed the room door. The fire activated one of two sprinklers in the room which sprayed water on the fire. The sprinkler extinguished the fire before the firemen arrived, which was shortly after the alarm.

The fire did not cause any deaths or injuries to residents at the Plaza Nursing Home. Fire damage was confined to the mattress and little, if any, heat or smoke damage occurred.

The Fire Chief attributed the absence of injuries and the prompt control of the fire to the sprinkler system and the quick employee response. Because the fire was promptly controlled, it did not generate sufficient heat (160 degrees Fahrenheit) to activate the second sprinkler in the room.

An official of the Illinois Fire Marshal's office attributed the cause of the fire to the careless use of smoking materials by a resident.

FIRE RESISTIVE NURSING HOMES
DO NOT INSURE LIFE SAFETY

The two nursing home fires in the Chicago area demonstrate that deaths do occur because of fire, even in fire resistive buildings. Moreover, there are other examples of fire resistive nursing homes which have had fires resulting in multiple deaths. Congressional committees have investigated these fires and used this information as the basis for

their recommendations for automatic sprinklers. (See apps. II and III.)

Causes of death in nursing home fires

The causes of death in the Wincrest and Cermak House fires were the same as other fires involving multiple deaths-- smoke and toxic gases. There were similarities between these two fires and four other nursing facility fires in Marietta, Ohio; Buechel, Kentucky; Madison, Wisconsin; and Wayne, Pennsylvania, studied by the Senate Subcommittee on Long-Term Care. (See app. III.) All of these facilities were classified as fire resistive and smoke and other products of combustion, rather than flames, caused multiple deaths.

In 1972, after its investigation of multiple death nursing facility fires, the House Committee on Government Operations reported in House Report 92-1321 that most fire deaths in nursing homes were caused by asphyxiation resulting from toxic gases, rather than actual burns. In 1975 the Senate Special Committee on Aging reported in Senate Report 94-00 that nursing home patients present a particular problem because of their reduced tolerance to heat, smoke, and gases and that many patients are under sedation or bound with restraints. The Senate Committee reported that despite the importance of smoke as the major cause of fire deaths in the United States, there are no national standards governing the smoke generation properties of furnishings, including carpets and floor coverings. (See app. II.)

Following the January 1970 Marietta fire, the following quote was included in the "Fire Journal": "Had the building been equipped with an automatic sprinkler system, all the victims could have been saved." After the Buechel fire, the publication stated: "If the entire building (not just the rubbish and laundry chutes) had been protected with an automatic sprinkler system, the fire could have been confined to the room of origin, with very little smoke or fire damage."

CONGRESSIONAL COMMITTEES HAVE RECOMMENDED SPRINKLERS IN NURSING HOMES SINCE 1972

The matter of the safety of elderly and disabled patients in nursing facilities has been a subject of considerable congressional concern for many years. Congressional committees studying this problem have historically advocated a requirement that all long-term care facilities be fully protected with automatic sprinkler systems. (See app. II.)

In its report of August 9, 1972 (House Report 92-1321), the House Committee on Government Operations concluded that the best means of avoiding multiple death fires is to construct complete automatic sprinkler systems which will also transmit an alarm to the nearest fire service.

Based on its investigation and conclusions, the Committee recommended legislation requiring all nursing facilities, as a condition for eligibility under Medicare and Medicaid, to be equipped with an automatic sprinkler system.

Upon completion of additional studies of nursing home fire safety, the House Committee on Government Operations issued a second report (House Report 93-1627) on December 18, 1974, which reiterated its earlier recommendation that all nursing homes, regardless of the type of construction, be equipped with automatic sprinklers.

The Senate Special Committee on Aging issued a report (Senate Report 94-00) on nursing home fires in August 1975. The report recommended that all States should enact legislation requiring automatic sprinkler systems in each of their long-term care facilities.

THE COST OF AUTOMATIC SPRINKLER SYSTEMS

The cost of installing an automatic sprinkler system will vary with the size and type of facility and depend on whether it is of new or existing construction. However, to examine the impact of requiring all nursing homes to install sprinkler systems, we are presenting general data obtained regarding the cost of sprinklers. In February 1976 we discussed the cost of installing a complete sprinkler system with a representative of the National Automatic Sprinkler and Fire Control Association. According to the representative, the installation of a complete sprinkler system, including pumps, valves, piping, and alarms, would cost from 75¢ to \$1.25 a square foot while constructing a building. Installation in an existing building would cost from \$1 to \$1.50 a square foot. Variables include whether the pipes were to be concealed or exposed, whether the sprinkler heads were to be recessed, and the availability of a water supply (that is, is a reservoir necessary), etc. In April 1976 we obtained data from seven sprinkler installation companies in the Washington-Baltimore area. According to their estimates, a sprinkler system might cost between 50¢ and \$1.75 a square foot in an existing facility. Actual installations during 1975 in four existing nursing facilities, three in Ohio, and one in Minnesota, showed costs ranging from \$393 to \$625 a bed, as follows:

<u>Facility</u>	<u>Number of beds</u>	<u>Square feet</u>	<u>Total HEW approved cost of sprinkler system</u>	<u>Cost per bed</u>	<u>Cost per square foot</u>
1	30	12,100	\$18,744	\$625	\$1.55
2	34	16,481	20,070	590	1.22
3	100	35,484	42,850	429	1.21
4	150	48,040	58,917	393	1.23

Sprinkler systems may cost about \$5.57 a bed each month

Using the highest actual cost per bed, the monthly cost of amortizing \$625 a bed over a 20-year period with a 9-1/4 percent interest rate is \$5.57 a bed each month, or about 19¢ a bed each day.

According to the National Fire Protection Association, automatic sprinkler heads need replacement at the end of 50 years. However, financing sprinkler system installation over a period of more than 20 years does not seem likely. Consequently, our computation shows the monthly payment expected over the term of a 20-year loan.

Savings for nursing facilities with sprinkler systems

Although fire insurance rates vary among States, savings are possible on both building coverage and contents insurance when nursing facilities are protected by automatic sprinkler systems. We obtained information on the general rates in Maryland and Washington, D.C., and found that savings of about 30 percent are possible on building coverage and 50 percent on contents insurance.

According to a representative of the Insurance Services Office of Maryland, a rating bureau under the jurisdiction of the State Insurance Commission, fire insurance premiums would be less because of the installation of automatic sprinklers in nursing facilities. With regard to fire insurance on the building, he said the rate per \$100 of insurance is about 8¢ without sprinklers in ordinary construction and about 6¢ with sprinklers, for a reduction of about 25 percent. In protected wood frame construction, he said the fire insurance rate per \$100 of insurance is about 16¢ without sprinklers and about 11¢ with sprinklers, for a savings of about 30 percent.

According to a representative of the Insurance Rating Bureau of Washington, D.C., building contents insurance

premiums could be reduced by as much as 50 percent by installing automatic sprinkler systems. He quoted rates for nursing facilities of frame, ordinary, and fire resistive construction. He stated that in buildings of frame construction, the building contents insurance rate per \$100 of insurance is about 71¢ without sprinklers and 45¢ with sprinklers, for a reduction of about 37 percent. In ordinary construction, he said the building contents rate per \$100 of insurance is about 50¢ without sprinklers in contrast to about 30¢ with sprinklers, for a savings of about 40 percent. For fire resistive construction, he quoted a building contents insurance rate per \$100 of insurance of about 20¢ without sprinklers and 10¢ with sprinklers, for a reduction of about 50 percent.

To illustrate the annual savings on fire insurance premiums due to the installation of an automatic sprinkler system, consider a hypothetical example of a protected wood frame facility insured for \$500,000 on the building and \$100,000 on the contents. Without a sprinkler system the facility would pay about \$800 for building insurance at 16¢ per \$100 of coverage and about \$710 for contents insurance at 71¢ per \$100 of coverage, for a total annual cost of about \$1,510. With a sprinkler system the facility would pay about \$550 for building insurance at 11¢ per \$100 of coverage and about \$450 for contents insurance at 45¢ per \$100 of coverage, for a total annual cost of about \$1,000. In this hypothetical example, the installation of an automatic sprinkler system would result in annual savings for fire insurance in excess of \$500.

Medicare and Medicaid will help pay for automatic sprinklers

Nursing facilities participating in either Medicare or Medicaid will be reimbursed for part of the cost of automatic sprinkler systems through interest and depreciation.

Medicare facilities receive reimbursement for all allowable costs associated with the use of the facilities by Medicare patients. Medicare regulations (20 CFR 405.415) provide that an appropriate allowance for depreciation on building and equipment is an allowable cost. Consequently, Medicare will reimburse facilities for the cost of automatic sprinkler systems over a period of time, suggested as 25 years, based on the number of Medicare patients. In addition, Medicare regulations (20 CFR 405.419) provide that interest on both current and capital indebtedness is an allowable cost. As a result, part of the interest paid each year on sprinkler system loans can be reimbursed under Medicare.

Medicaid is required to reimburse facilities on a cost-related basis as of July 1, 1976. Under HEW proposed regulations, dated April 7, 1976, to implement this requirement, depreciation and interest may be included in the determination of costs, based on Medicaid patient utilization of the facility.

Over the long run, since depreciation and interest are allowable costs under both Medicare and Medicaid, part of the costs of installing automatic sprinkler systems in nursing facilities will be paid by Medicare and Medicaid. Medicare is all federally funded and Medicaid is funded by Federal, State, and local governments.

The actual amounts to be paid by Medicare and Medicaid will vary among facilities depending on the number of residents covered by the programs. However, according to a report from the Social Security Administration, Medicare and Medicaid paid over 55 percent of the national health expenditures for nursing home care during fiscal year 1975.

These expenditures include services in SNFs, ICFs, and all other homes providing nursing care.

CONCLUSIONS AND RECOMMENDATIONS TO THE CONGRESS

As a result of the investigations of multiple death nursing facility fires, a strong case can be made for a requirement that all nursing facilities, regardless of construction type, be fully protected with an automatic sprinkler system. Therefore, we recommend that the Congress enact legislation which will require that all nursing facilities be fully protected with an automatic sprinkler system.

From a practical perspective, however, we recognize that in some cases, such a requirement could result in unreasonable hardships, and some facilities may be unable to comply with a requirement for automatic sprinklers. Since such factors may exist, the waiver provision of the Social Security Act should be applied only in specific cases and only when approved by personnel qualified in fire protection engineering. HEW policy should be to make every effort to avoid waivers and to assure installation of complete sprinkler protection in all nursing homes.

The waiver provision of the Social Security Act allows a waiver if the enforcement of the fire safety requirement would result in an unreasonable hardship, but only if the waiver would not adversely affect patient health and safety.

Because of HEW's improper treatment of its existing waiver authority, as discussed in our 1975 report, and its lack of acceptance of the need for waiver standards for all types of construction, the Congress should require that HEW establish waiver standards which must be rigidly enforced before a waiver may be granted to any facility, regardless of construction type. This should help insure that the waiver will not adversely affect patient health and safety and will be applied in a uniform manner throughout the country.

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CHAPTER 4

LITTLE USE MADE OF FEDERAL

LOAN INSURANCE PROGRAM FOR

NURSING HOME FIRE SAFETY EQUIPMENT

There are a number of ways nursing home owners can finance the cost of installing automatic sprinkler systems, including equity capital of the owner, commercial borrowing, mortgage financing, and federally insured loans. While we do not know why the federally insured loan program has not been successful, we believe that the Department of Health, Education, and Welfare's long processing time and the Department of Housing and Urban Development's position of not insuring loans for projects which have already started contribute to the problems facing nursing facilities applying for Federal loan insurance.

FEDERAL LOAN INSURANCE PROGRAM HAS NOT BEEN UTILIZED

In its August 9, 1972, report (House Report 92-1321), the House Committee on Government Operations concluded that, unless the Federal Government provided a mechanism for insuring loans for automatic sprinkler systems, not all facilities would be able to finance such systems. The Committee recommended that the appropriate congressional committees consider legislation to provide insurance for long-term loans made for installations of sprinkler systems as a means of assisting facilities in obtaining such financing.

As a result, on December 28, 1973, Public Law 93-204 was enacted, which authorized the Secretary of HUD to insure loans made to nursing facilities for the purchase and installation of fire safety equipment. This law amended section 232 of the National Housing Act which is designed to provide mortgage insurance for nursing homes.

In October 1974, 10 months after the law was approved, the Secretary of HUD and the Acting Secretary of HEW entered into an agreement for administering this section of the National Housing Act. HUD and HEW agreed to the allocation of functions, as well as policies, procedures, and joint working arrangements, for administering the loan insurance program. Applications for insurance would be processed as follows:

--HEW would furnish HUD a copy of the approved architectural exhibits and a determination that, with the installation of the equipment, the facility would meet the Life Safety Code or any other code required for Medicare or Medicaid certifications.

--HEW would advise HUD that the proposed cost of the installation of the fire safety equipment was reasonable.

--HUD would process the applications and issue a commitment and insure the loan on the basis of the analysis of the HUD underwriting staff.

--HEW would inspect the installation and notify HUD that the improvements had been satisfactorily completed.

--HUD would reimburse HEW for the services rendered under the agreement.

According to HUD, the following terms had been established for insuring such loans:

--\$10,000 minimum loan.

--Annual interest rate not in excess of 9-1/4 percent.

--Annual loan insurance premium of 1 percent.

--Maturities of 5, 10, or 15 years. On loans of \$50,000 or more, a maturity period of 20 years.

In a March 12, 1975, letter to all approved lenders, HUD pointed out that "it is crucial that this program be implemented quickly." The letter said "the program needs the support of the financial community to make the important goals of this new law a reality. Processing of these loans by our field offices will be given prompt attention."

According to HUD officials, there have not been any loans approved under Public Law 93-204. As of late April 1976, only one application had been sent to HUD and this was disapproved because the facility did not meet HUD financial requirements (relating to loan repayment).

Little interest in the loan insurance program

According to HEW officials, there has been relatively little interest in the Federal loan insurance program for fire safety equipment. The following table reflects the low interest level and shows a concentration of inquiries in the Chicago region. This region includes Ohio which, on December 30, 1972, enacted a State law requiring nursing homes to install automatic sprinkler systems by January 1, 1975 (later extended to January 1, 1976). This data, as of April 1976 (except for the Chicago regional office which was September 1975), was provided by HEW for 5 of its 10 regions. Information on the other regions was not available.

	<u>HEW Regions</u>				
	<u>Boston</u>	<u>Philadelphia</u>	<u>Atlanta</u>	<u>Chicago</u>	<u>San Francisco</u>
Number of inquiries to HEW	5	2	9	159	27
Number of applications received by HEW	0	0	2	10	11
Number of applications sent to HUD	0	0	1	<u>a/4</u>	0
Number of applications not approved by HEW	0	0	<u>b/1</u>	<u>b/6</u>	<u>b/11</u>
Number of applications disapproved by HUD	0	0	1	0	0

a/In each of these cases the applicant withdrew before the application had been processed through the lender. HUD does not begin its processing until it receives an application from an approved lending institution.

b/These applications were not approved by HEW because work had begun and HUD would not insure loans for such projects.

HEW officials told us that the only application HUD acted on resulted in a disapproval because the facility did not meet HUD financial requirements relating to the ability of the nursing facility to repay the loan. Applications received by HEW and not forwarded to HUD were applicants who withdrew. The reason for the withdrawal was that they had begun work and HUD would not provide loan insurance for projects already begun.

According to HEW officials, nursing facilities did not apply, or withdrew their applications, because the program offered no advantage over conventional loans and involved much more paperwork and time. These officials said the insured loan program came too late to be helpful because most nursing facilities had already begun to make the necessary corrections as a result of the HEW and State enforcement efforts. They pointed out that HEW had been insisting on the correction of serious fire safety deficiencies before the enactment of the loan insurance program.

These officials said that because the interest rate on these loans was no better than could be obtained without the HUD guarantee, nursing facilities obtained needed financing through conventional means.

The HEW officials told us that it is unlikely that many nursing facilities will use the program in the future unless there are clear advantages, such as low interest rates. If the program is used in the future, they said it could be improved by simplifying the process of obtaining HEW and HUD approval.

HEW processing time

According to the Associate Director of the HEW Office of Nursing Home Affairs, it takes HEW more than 3 months to process applications for insured loans. This, he said, is too long for the nursing home operators to wait to begin loan negotiations with lending institutions. The official said the time period was long because HEW engineers needed to obtain all necessary information, to review and approve architectural plans, and to evaluate cost estimates. He pointed out that each regional office has a limited number of engineers and much demand for their services; the regional offices are simply overloaded with other work. Accordingly, the regional office staffs have been slow in processing applications for insured loans.

He also pointed out that the number of applications to HEW for such insured loans has been limited. Although a

number of inquiries have been received, very few result in actual applications for the program.

We examined the number of applications received in the Chicago regional office of HEW. Of approximately 159 inquiries, as of September 1975, in the program, HEW received only 10 applications. In six of the cases, HEW refused to process the applications because the nursing home owners had already started to correct their fire safety deficiencies.

According to a January 28, 1975, HUD memorandum to the Director of the HEW Office of Nursing Home Affairs, HUD would not insure a loan after work had started on installing the fire safety equipment or in making repairs.

The remaining four cases all resulted in the installation of sprinkler systems, but not with HUD-insured loans. In two cases, the owners told us that they became so frustrated because of the time HEW was taking to process the applications that they went ahead and obtained commercial financing. In another case, the owner told us that he could not find a lending institution willing to make the insured loan because the insured loan interest rate was too low at the time, and the banks were reluctant to make such loans to a nursing home. The owner then obtained an adjustment to his existing mortgage to finance the sprinkler system. In the fourth case, the owner said HUD wanted him to make extensive repairs to the roof which were not required by HEW. According to HUD officials, the repairs were suggested rather than required, and they were willing to begin processing the loan guarantee without such repairs. However, the owner withdrew his application and obtained financing elsewhere.

In all four cases the processing time by the HEW Chicago regional office took from 6 to 8 months as shown on the following page.

Long processing time
can be a problem

HEW regulations provide that a nursing facility's certification will be automatically canceled no later than 60 days after the date established for the correction of health or safety deficiencies unless all deficiencies are corrected or substantial progress has been made in correcting the deficiencies. HEW guidelines define "substantial progress" to mean that corrections are well underway and that there is tangible and visible evidence of progress made. If the only progress by the facility has been a loan application,

according to the guidelines, this would not be substantial progress sufficient to prevent the automatic cancellation.

<u>Facility</u>	<u>Date of application</u>	<u>Date of HEW approval</u>	<u>Approximate processing time</u>
Nursing Facility A (30 bed ICF) Felicity, Ohio	1-13-75	7-21-75	6 months
Nursing Facility B (100 bed SNF) East Cleveland, Ohio	12-09-74	7-31-75	8 months
Nursing Facility C (150 bed SNF/ICF) Cincinnati, Ohio	2-04-75	8-15-75	7 months
Nursing Facility D (34 bed ICF/MR) Minneapolis, Minnesota	2-03-75	8-20-75	7 months

According to the HUD procedures, a loan cannot be insured under the program after work has started. An official said HUD believes that the law establishing the loan insurance program does not authorize insurance for loans for previously purchased fire safety equipment. He said that if work had begun, the purchase was considered to have been made and the loan would be for a retroactive project.

An illustration of the problems facing nursing facilities is the actual case of nursing facility D in Minneapolis. In January 1975 the facility was cited by the State survey agency as requiring an automatic sprinkler system to be in compliance with Federal fire safety requirements. At that time, an automatic cancellation date was established as September 1975, which was 60 days after the planned correction date. In February 1975 the facility applied through HEW for a federally insured loan to pay for the sprinkler installation. HEW approval of the loan insurance application was not received until mid-August 1975. Very little time remained for the facility to locate a lending institution, negotiate a loan, process the HUD application, obtain a sprinkler contractor, and begin work before the certification of the facility would be automatically canceled in September. Because of the long processing time, the facility obtained financing through other means during September 1975.

Causes of delays in HEW processing

The Deputy Director, HEW Chicago regional Office of Long-Term Care said the office believes that it is necessary for HEW engineers to physically inspect the facilities before the loan insurance applications can be processed to certify to HUD that the facility will meet Federal fire safety requirements. She said that because of past experience with the quality of State inspections in Ohio and Minnesota, HEW engineers were reluctant to rely on the State Life Safety Code surveyors. She pointed out that neither Ohio nor Minnesota use engineers or architects to make fire safety inspections. In the cases of the four facilities approved by HEW for HUD-insured loans, deficiencies were found at each facility by HEW engineers which were not identified by the State inspectors. At nursing facilities B and C, the State inspectors identified no fire safety deficiencies, although the HEW engineers noted several deficiencies in meeting the fire safety requirements. At facilities A and D, the State inspectors cited some fire safety deficiencies; the HEW engineers found several additional deficiencies.

She said also that the processing time by HEW includes the onsite inspection by HEW engineers and evaluation of architectural drawings and exhibits. In addition, HEW evaluates cost estimates from sprinkler contractors. These documents must be obtained from the facilities. In the four cases reviewed by the Chicago office, several letters were sent to the facilities requesting this information, which delayed the final approval of the applications.

HUD did not publicize the loan program

In April 1975 HUD published a brochure entitled, "Nursing Home Mortgage Insurance," which explains that the program under section 232 of the National Housing Act is designed to foster the construction of new nursing homes and the rehabilitation of existing ones. The brochure did not mention the availability of loan insurance for the purchase and installation of fire safety equipment as provided in section 232(i) of the act. The brochure did not publicize the loan insurance program or explain the eligibility requirements, the amounts available, the conditions, fees and charges, special requirements, and application instructions.

We believe that the brochure should have included a section explaining the availability of insurance for loans for fire safety equipment.

HOW TO IMPROVE THE
LOAN INSURANCE PROGRAM

The HUD loan insurance program could be a viable source of assistance to nursing facility owners in obtaining financing for automatic sprinkler systems. We believe the problems encountered in the loan insurance program for fire safety equipment rests both with HEW's processing procedures and HUD's position of not insuring loans on projects which have already been started.

To alleviate the difficulties encountered by HEW, we believe that both HEW and HUD should evaluate the loan application processing procedures to reduce the need for HEW's detailed review and inspection.

Currently, HEW receives copies of the State inspection reports which indicate nursing facility deficiencies in the fire safety requirements. In addition, HEW receives copies of the plans for correction, which, when completed, should bring the facility into compliance with Federal fire safety requirements. Consequently, it seems that these documents could satisfy the need to certify that correction of the fire safety deficiencies should result in compliance with Federal fire safety requirements because Medicare and Medicaid certification is contingent upon the approved correction of such deficiencies. With regard to the certification of reasonable cost estimates by HEW, it seems that this function could be more efficiently accomplished by HUD personnel, since they deal with estimating costs in other types of construction projects. The certification of reasonable cost could be made part of the HUD underwriting procedures and thereby reduce HEW's processing time.

To solve the problem experienced by nursing facilities denied loan insurance applications because work has previously started, we believe HUD should reconsider its position of not insuring loans for ongoing work. Nursing facilities can be under strict time constraints to correct fire safety deficiencies or be faced with the possibility of having their certification canceled. It would seem to be in the interest of patient safety to have the corrections made as soon as possible. In some cases work could be started while the loan insurance application is being processed.

The Chairman of the House Committee on Banking and Currency pointed out in a letter that the Housing and Community Development Act of 1974 (Public Law 93-383) provided additional statutory authority to HUD to assist in the

financing of fire safety equipment. He stated that in his opinion, the authority contained in section 309 of the 1974 Act could be used to assist in the financing of fire safety equipment which has been, or is in the process of being, installed. A HUD attorney told us that the provision cited by the Chairman was not operational because implementing regulations have not been published.

Title I, section 2 of the National Housing Act authorizes the Secretary of HUD to insure loans made by approved lending institutions for financing alterations, repairs, and improvements on or in existing structures. The Housing and Community Development Act of 1974, section 309, added fire safety equipment to eligible improvements. This section further specifies fire safety equipment in nursing facilities. Based on our review of this section, we believe that it permits the Secretary to insure loans already in existence for work which has begun or been completed.

CONCLUSIONS

The Federal insurance program for fire safety equipment loans has not been successful in assisting nursing homes in installing automatic sprinkler systems. The program could be more effective if HEW and HUD establish procedures to minimize loan insurance eligibility processing time and encourage lenders to make fire safety equipment loans. HEW and HUD should publicize the Federal loan insurance program.

RECOMMENDATIONS

We recommend that the Secretary of HEW:

- Review the current loan application processing procedures with HUD and establish procedures for HEW to provide HUD with:
 - (1) Copies of State inspection reports to substantiate the violations of Federal fire safety requirements and the need for correction.
 - (2) Copies of the approved plans for correction, which should indicate that correction of the cited deficiencies should bring the facility into compliance with Federal fire safety requirements.
- Eliminate the need for HEW to certify the reasonableness of the cost estimate for the installation of fire safety equipment.

We recommend that the Secretary of HUD:

- Establish regulations to permit fire safety equipment loan insurance after the work has begun.
- Publicize the availability of the fire safety equipment loan insurance program by revising the nursing home brochure dealing with nursing home mortgage insurance.

AGENCY COMMENTS

Because congressional hearings were scheduled, the Chairman's office requested that we not delay the report to get formal comments from HEW and HUD. However, we did give both agencies an opportunity to review our findings, conclusions, and recommendations. Informal comments from agency officials were considered where appropriate in this report.

In addition, we discussed the contents of the report with representatives of the National Fire Protection Association and the Department of Commerce's National Fire Prevention and Control Administration who agreed with our recommendations to the Congress. Their comments are included in appendixes VI and VII.

NINETY-FOURTH CONGRESS

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February 20, 1976

Mr. Elmer B. Staats
 Comptroller General
 General Accounting Office
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 Washington, D. C. 20548

Dear Mr. Staats:

Our Subcommittee and the Senate Subcommittee on Long-Term Care intend to hold a hearing in Chicago on the recent tragic nursing home fires in that city killing approximately 20 persons. Your recent reports on the subject of nursing home fires and your staff's expertise in this area are well known to me.

I would greatly appreciate your assistance in investigating the reasons for the severity of the fires and your suggestions as to possible curative actions to avoid future similar situations. In addition, please investigate:

- whether a sprinkler system throughout the facilities would have put out the fires or lessened the severity;
- whether the facilities in Chicago meet the life safety code requirements for participation in the Medicare program;
- H.E.W.'s enforcement of fire safety standards in Chicago and elsewhere;
- the accuracy of state inspections of the Chicago facilities in question and of H.E.W.'s validation;
- the state inspection procedure, including the qualifications of the inspectors;
- the quality of trained personnel assisting patients during the fires;
- H.U.D.'s implementation of P.L. 93-204, authorizing insured loans to provide fire safety equipment for nursing homes and intermediate care facilities, both in Chicago and elsewhere;

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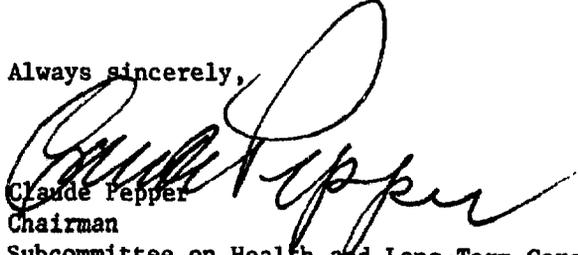
Mr. Elmer B. Staats
Page 2
February 20, 1976

--- finally, any additional matters which, in your judgement, would assist our Subcommittee in its assessment of the fires and possible action.

Kindest regards, and

Believe me,

Always sincerely,



Claude Pepper
Chairman
Subcommittee on Health and Long-Term Care

CP:ke

BEST DOCUMENT AVAILABLE

SUMMARY OF PERTINENT CONGRESSIONALCOMMITTEE REPORTS ONFIRE SAFETY IN NURSING HOMESHOUSE COMMITTEE ON
GOVERNMENT OPERATIONS--1972

House Report 92-1321, "Saving Lives in Nursing Home Fires," published August 9, 1972, by the House Committee on Government Operations was a part of the study on the problems of the aging begun in the latter part of 1971 by the Special Studies Subcommittee. The findings reported by the Committee included:

- In the 20 years from 1951 through 1970 a total of 496 deaths in nursing home fires were reported where multiple deaths occurred, for an annual average of 25 deaths. In 1971 there were 38 such deaths and for the first half of 1972, 30 deaths had occurred.
- The combination of a sparse night staff and aged residents, of whom 50 percent are disoriented and 40 percent are partially or totally nonambulatory, renders infeasible the successful evacuation of residents in case of a fire at night.
- The use of a fire detection alarm system connected to the nearest fire department may serve to avoid a total loss of life, but it still does not prevent, as recent fires had shown, a large number of deaths occurring, notwithstanding an extremely prompt response by the alerted fire department.
- Even fire resistive or protected noncombustible construction does not prevent contents fires in such structures. In fact, if such construction is not carefully executed, or if at the time of a fire, doors are not closed, then such construction will not stop a fire from spreading, as demonstrated by the nursing home fires in Marietta, Ohio, in 1970 and in Buechel, Kentucky, in 1971.
- Since most fire deaths in homes for the aged are caused by asphyxiation resulting from toxic gases rather than being caused by actual burns, the increased use of fire retardant materials and substances, which basically result in incomplete combustion produce toxic gases, may in the opinion of one

expert, increase the hazard of death in fires rather than reducing it.

- According to the National Safety Council and the American Nursing Home Association, automatic sprinkler systems installed throughout a facility, not only in hazardous areas, provide the greatest "safety to life" factor available in the fire protection field, because they can automatically sound an alarm and immediately start fighting the fire when activated. When activated, they are the most reliable and effective means of fire extinguishment. Other forms of protective equipment, including automatic alarms, are not effective substitutes for automatic sprinkler systems.
- This is basically the position of the National Fire Protection Association, which has voted to require early warning detection and automatic sprinklers in all new and existing nursing homes, regardless of the type of construction.
- The Fire Marshals Association of North America, which has within its membership all of the State Fire Marshals as well as those serving local government, adopted a resolution in its 1965 convention endorsing the principle of complete automatic sprinkler systems for all institutions and homes caring for the aged, regardless of construction type, detection systems, or other protection.
- The Joint Commission on Accreditation of Hospitals, in its standards of accreditation for nursing care and resident care facilities, agrees with this view and recommends that every facility be provided with a complete automatic sprinkler system.
- The best means of avoiding multiple death fires is the construction of complete automatic sprinkler systems which will also transmit an alarm to the nearest fire service.
- The cost of installing an automatic sprinkler system in an existing structure will necessarily be more than the cost of including it in new construction. The Committee has, from figures received by it, concluded that the average installation cost will be about \$800 a bed for existing construction. Amortization of such installation costs on a 20-year basis, at 8 percent, comes to an annual charge of approximately \$80.

- Unless the Federal Government provides a mechanism for insuring such loans, not all facilities will be able to finance sprinkler system installation costs.

Recommendations

The House Committee on Government Operations made specific recommendations in its August 9, 1972, report (House Report 92-1321) including:

- The appropriate congressional committees should consider legislation requiring that, as a condition for eligibility under Medicare or Medicaid or for housing the aged receiving old age assistance payments, each institutional facility for the aged (no matter what its name and even if not licensed under State law as a nursing home or related health care facility of some type) must have a complete automatic sprinkler system which will also transmit an alarm to the nearest fire service. No facility should be deprived of its existing Medicare or Medicaid eligibility unless it fails to comply within a reasonable period of time.
- The appropriate congressional committees should consider legislation to provide insurance for long-term loans made for installations of such sprinkler systems as a means of assisting facilities in obtaining such financing. (This legislation was enacted as Public Law 93-204, approved Dec. 28, 1973.)

HOUSE COMMITTEE ON GOVERNMENT OPERATIONS--1974

House Report 93-1627, "Fire Safety Deficiencies in Nursing Homes," published December 18, 1974, by the House Committee on Government Operations, was a continuing part of the study of problems of the aging by the Special Studies Subcommittee. The findings reported by the Committee included:

- A staff survey of Medicare facilities disclosed that half of the "unsprinklered" protected ordinary construction nursing homes housed above the street level floor, contrary to HEW regulations, blind nonambulatory or physically disabled patients. It also showed that two-thirds of the unsprinklered protected noncombustible homes also housed such patients above the street level floor.
- Under its authority to grant waivers of certain requirements under the Life Safety Code, HEW had adopted a system that had resulted in nursing facilities

receiving Federal funds, even though they had not met statutory safety requirements.

--HEW prescribed sprinkler equivalency standards in 1972 for only one class of construction--protected wood frame--leaving the granting of a waiver a matter of discretion for other types of construction. Protected ordinary construction alone accounts for almost one-third of the unsprinklered Medicare homes on HEW's Bureau of Health Insurance records.

--A sampling of homes operating under a waiver of the sprinkler requirement disclosed that 35 percent did not meet the four equivalency standards prescribed in HEW regulations.

--The same survey found that homes were granted waivers on the basis of plans to meet the HEW requirements, even though HEW policy is to grant waivers only when the four equivalency requirements are satisfied.

Recommendations

The House Committee on Government Operations made specific recommendations in its December 18, 1974, report (House Report 93-1627) including:

--The Committee reiterates its earlier recommendation that all nursing homes, regardless of the type of construction, be equipped with automatic sprinklers.

--Pending sprinklering of all such facilities, HEW should act to insure that homes presently permitted to operate without sprinklers because of construction type actually meet the Life Safety Code requirements for such construction type.

--Likewise, nonambulatory, blind, or physically disabled patients should not be housed above the first floor of any non-fire resistive structure which does not have an automatic sprinkler system.

--Waivers permitting homes to operate without sprinkler systems should not be granted to any facility, regardless of construction type, that does not meet the HEW equivalency standards.

SENATE SUBCOMMITTEE ON
LONG-TERM CARE--1975

Senate Report 94-00, "Nursing Home Care in the United States: Failure in Public Policy, Supporting Paper No. 5, the Continuing Chronicle of Nursing Home Fires," published in August 1975 by the Subcommittee on Long-Term Care, Senate Special Committee on Aging, stated:

- Older Americans make up 10 percent of the population but 30 percent of the deaths by fire. They are involved in 59 percent of all clothing fires, having a 73 percent mortality rate in such fires, as compared to 23 percent for younger persons.
- Nursing home patients present a particular problem because of several factors: (1) their advanced age (average 82), (2) their failing health (average four disabilities), (3) their mental disabilities (55 percent are mentally impaired), (4) their reduced mobility (less than half can walk), (5) their sensory impairment (loss of hearing, vision, or smell), (6) their reduced tolerance to heat, smoke, and gases, and (7) their greater susceptibility to shock.
- Despite much progress in recent years, nursing homes and related facilities still rank number one on the list of unsafe places to be in case of a fire.
- In 1973 there were 6,400 nursing home fires (17.5 each day of the year), causing \$3.6 million in damage. An estimated 500 persons lost their lives in single death institutional fires. Fifty-one persons lost their lives in multiple death fires (those killing three or more). These figures represent sharp increases from 1971, when there were 4,800 fires and 31 persons killed in multiple death fires.
- Because nursing home patients often cannot take action to protect themselves in case of fire, they must rely upon the help of others. In most cases such help has not been available. There are few nursing personnel available (particularly at night), and most are untrained in rescue and firefighting techniques. Compounding the problem, many patients are under sedation or bound with restraints.
- Because the elderly cannot protect themselves and because nursing home personnel often prove incapable of taking action to save them in case of fire, automatic

detection, alarm, and extinguishment equipment are recommended. Sprinkler systems, while far from a panacea, are, by and large, the difference between life and death.

- Greater emphasis must be placed on the installation of fire-retardant furnishings. Too often fire resistive buildings are constructed only to be filled with flammable carpets, curtains, vinyl upholstery, and the like. There is no emphasis on the hazard of smoke production or on the effect of toxic gases on humans. Recent research demonstrates that deadly gases such as phosgene and cyanide are released when various plastics, acrylics, and nylons are burned. Many such products are found in nursing homes.
- Over the years, 33 percent of all nursing home fires have been caused by smoking or matches; heating or electrical problems followed next with 18 and 15 percent, respectively. Eight percent were labeled "suspicious"--a suggestion that arson was the fire's cause. Fires most frequently begin in patient rooms (35 percent) and most often take place from midnight to 6 a.m. (42 percent). About 35 percent of all nursing home fires occur in wood frame buildings; only 3 percent occur in fire resistive buildings.

Recommendations

In its August 1975 report, (Senate Report 94-00) the Senate Special Committee on Aging made several recommendations, including:

- Nursing home providers and State and Federal Government officials must work together to create an all-out effort to eliminate serious fire loss in nursing homes and related facilities. This coordinated attack must proceed on every level, encompassing the latest technology with respect to fire prevention, detection and alarm, and confinement and control.
- HEW needs to insure that States follow its procedures in recommending waivers.
- All States should enact legislation requiring automatic sprinkler systems in each of their long-term care facilities.
- Legislation should be enacted to help nursing homes repair and renovate to meet Federal minimum standards.

- State and Federal fire safety officials should place greater emphasis on the flammability of nursing home furnishings.
- A greater research effort is needed with respect to the adequacy and appropriateness of current fire safety protection for nursing home patients. Smoke production standards should be created. State and Federal policymakers should place much greater emphasis on the toxicological effects of fire on humans.

DETAILS OF OTHER FIRE RESISTIVE NURSING FACILITYFIRES INVOLVING MULTIPLE DEATHS

The 1975 report (Senate Report 94-00) by the Senate Special Committee on Aging included the following examples of fires which resulted in multiple deaths even though the nursing homes were classified as fire resistive.

Marietta, Ohio--January 9, 1970

The Harmer House Convalescent Home was an unlikely site for a tragic nursing home fire. This relatively new (built in 1966), noncombustible structure boasted the most advanced technology, design, and building materials. The latter included solid core doors, brick veneer, gypsum-board walls, roof of plywood on steel stresses, concrete floor covered with noncombustible tile and/or nylon carpet with sponge-rubber backing. This home also had rate-of-rise and fixed-temperature heat detectors connected to an internal alarm system with manual pull stops. There were no sprinklers or smoke detectors, and the alarm system was not tied in to the fire department. Of the 46 residents, 32 died of smoke inhalation, even though there were 4 regular employees and 2 private-duty nurses in the home when the fire broke out at 9:57 p.m. The probable cause of the fire was a cigarette thrown into a trash-filled plastic wastebasket which, in turn, ignited the sponge-rubber carpet backing, causing considerable smoke throughout the building. The fire department's relatively late arrival (10:15) was due, in part, to the fact that the employees tried to fight the fire and evacuate residents before calling for assistance.

Buechel, Kentucky--January 14, 1971

Westminster Terrace Presbyterian Home for Senior Citizens was a modern, four-story, fire resistive building. It was made of 8-inch concrete block with 4-inch brick veneer and equipped with rate-of-rise and fixed-temperature heat detection devices and automatic smoke-stop partitions. Sprinklers were installed in laundry and rubbish areas. There was a manual alarm but no direct tie to the fire department. Two nurses were on duty at 2:23 p.m. when the fire began, and the fire department responded in less than 3 minutes. Some 13 fire-trucks, 150 firefighters, and 46 emergency vehicles responded to the blaze. In spite of these efforts, 10 of the 94 residents perished. The cause of the fire is not known but experts have labeled the fire "suspicious"--indicating that arson is suspected. This fire demonstrates the folly of constructing fireproof buildings and filling them with flammable

furnishings and combustible interior finishes. The House Committee on Government Operations reported that a postfire investigation revealed that on the first floor the smokestop partitions extended only to the suspended ceiling, and utility piping pierced the concrete floor slabs so that openings were left through which smoke could travel from floor to floor. Smoke apparently traveled to the rest of the building through these gaps in the fire resistive construction and, to a lesser extent, through the building's ventilation system.

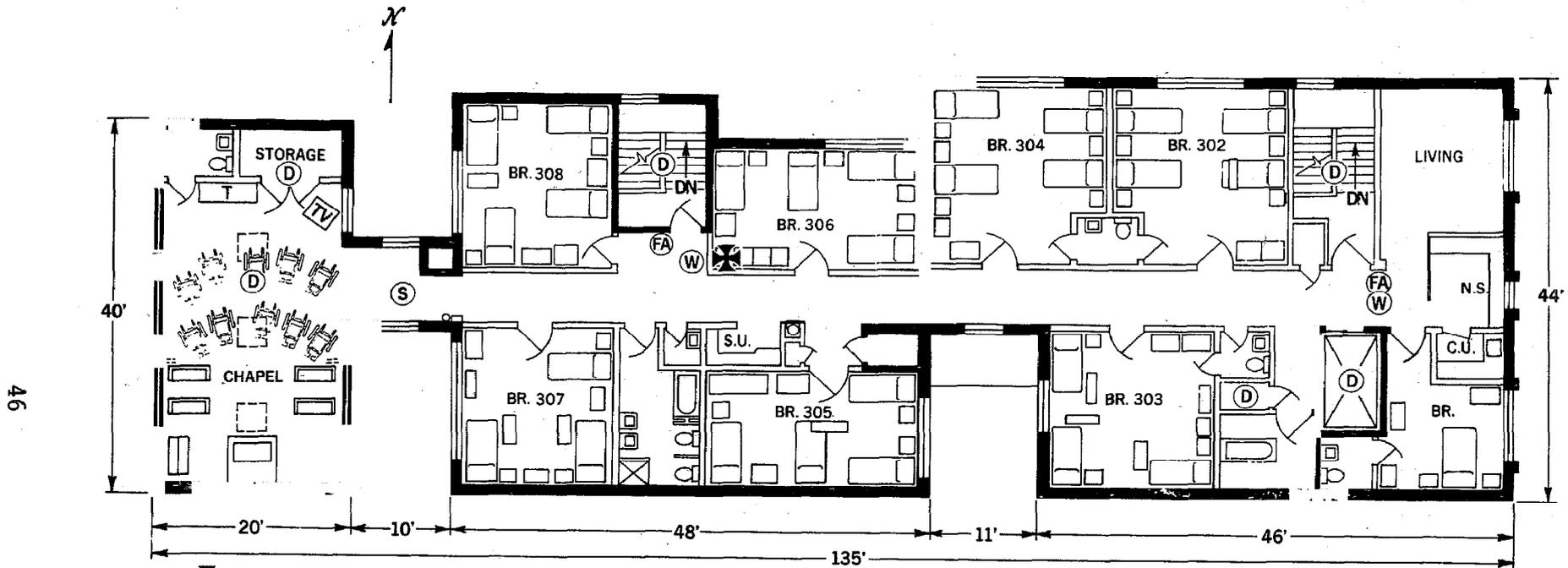
Madison, Wisconsin--January 8, 1973

Three of the 75 residents in this comparatively new ten-story (10 year old) fire resistive apartment house with residential care facilities died in the fire. The cause of the fire was smoking in bed. In fact, 3 months before, the same occupant had been blamed for a mattress fire which caused \$100 damage. The building was equipped with fire extinguishers, a manual alarm system, a public address system, posted evacuation plans, and sprinklers in stairways of the 1st-2d and 10th story levels. A switchboard operator alerted a new part-time employee that one of the residents had complained of fire. The student went to investigate; consequently there was delay in reporting. The fire department did not reach the fire which began at 9:58 until 10:15 p.m.

Wayne, Pennsylvania--December 4, 1973

On July 12 an inspection by the Pennsylvania Department of Labor and Industry revealed 13 violations of the Life Safety Code in the Caley Nursing and Rehabilitation Center which was given 6 months to comply to the code. The fire that began at 8:57 a.m. in a clothes closet killed 15 people. The fire department responded within 4 minutes. Several employees were on duty, including a physician who pulled the manual alarm to report the fire. The facility was also equipped with heat detectors. The building was a three-story, converted attic mansion of cut stone with wood frame interior walls. It had been used as a nursing home since 1951. An addition was added in 1966, largely of noncombustible material such as concrete floors and a steel-deck roof. The critical defect was the lack of sprinklers. The facility was classified as fire resistive; however, during an investigation by the Special Studies Subcommittee, House Government Operations, it was found to be improperly classified. According to a National Fire Protection Association specialist, one of the fire safety code violations noted was a lack of fire doors in the communicating openings between the new and old sections of the building. This single violation

appeared to have been most critical, since smoke movement through the new section of the second floor was significant. Of the 15 fatalities, 8 were in the new section. Had the doors been provided, the degree of smoke migration would have been significantly reduced, and the possibility of fatalities would have been proportionally reduced. Important too was the lack of automatic sprinklers, which probably would have controlled the fire early, preventing loss of life.



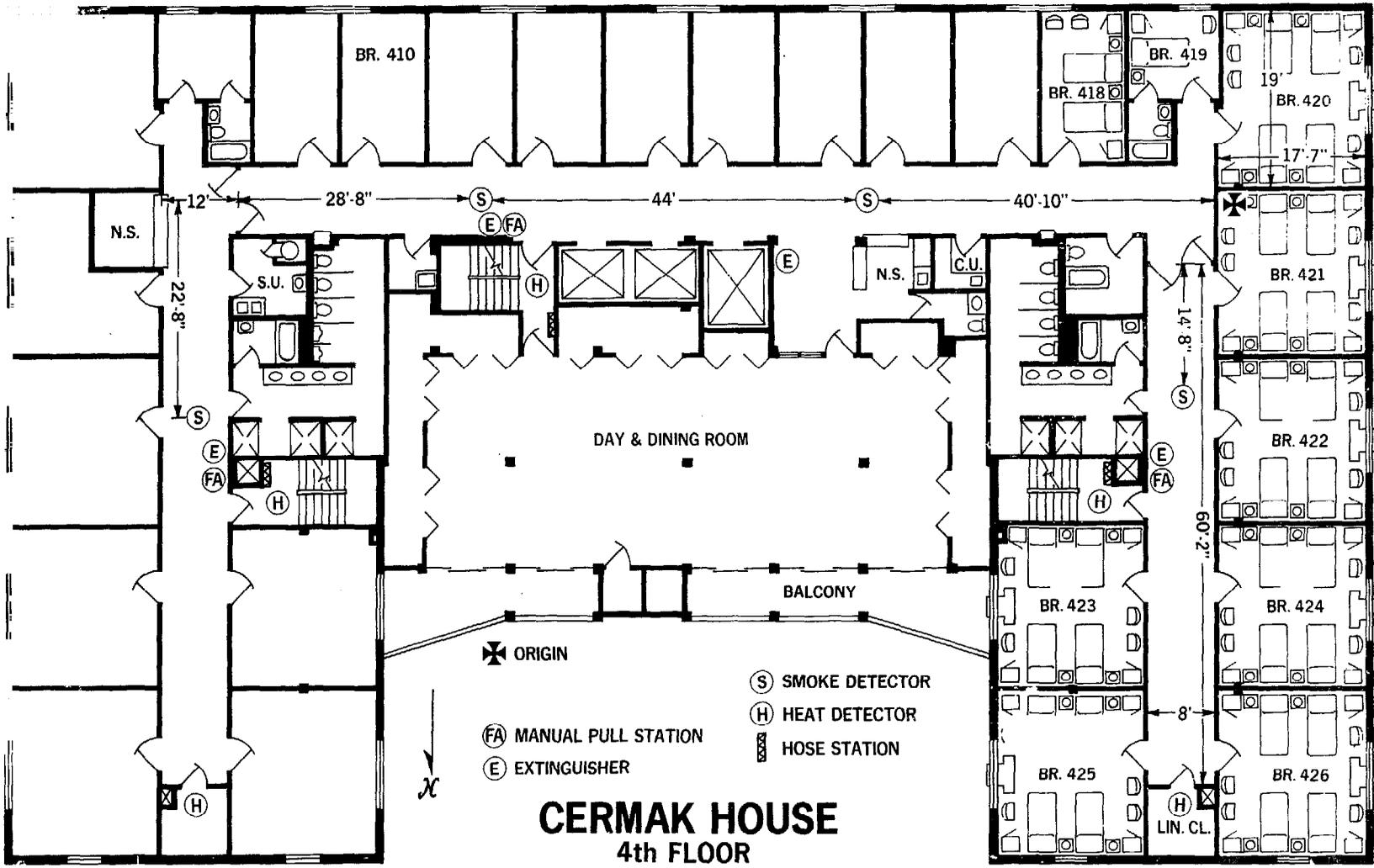
- ✝ ORIGIN
- ⓕ FA MANUAL PULL STATION
- Ⓜ W PRESSURIZED H₂O EXT.
- ⓓ D HEAT DETECTOR
- Ⓢ S SMOKE DETECTOR

WINCREST NURSING HOME
THIRD FLOOR
CHICAGO, ILL.

SOURCE: NATIONAL FIRE PROTECTION ASSOCIATION

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47



CERMAK HOUSE
 4th FLOOR
 CICERO, ILLINOIS

- ✠ ORIGIN
- (S) SMOKE DETECTOR
- (H) HEAT DETECTOR
- (FA) MANUAL PULL STATION
- (E) EXTINGUISHER
- HOSE STATION

SOURCE: NATIONAL FIRE PROTECTION ASSOCIATION



"Moving Mankind Toward Safety From Fire"

NATIONAL
FIRE PROTECTION
ASSOCIATION

INTERNATIONAL

May 24, 1976

Mr. Alan S. Zipp
General Accounting Office
330 C Street, S.W. Room 1126
Washington, D.C. 20201

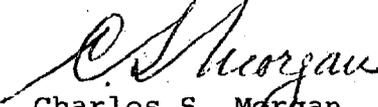
Dear Mr. Zipp:

Thank you for permitting us to review and comment on the draft report of the Controller General to Congress on Federal Fire Safety Requirements for Nursing Homes, as produced by the Department of Health, Education and Welfare. We are glad to have the opportunity to comment on the proposals for automatic sprinkler protection of nursing homes.

The Life Safety Code developed and recommended by this Association, which, as you know, is widely enforced throughout the country, calls for the installation of automatic sprinkler systems in all nursing homes of other than "fire resistive" and one-story "protected non-combustible" construction. Further, the Life Safety Code encourages the installation of such systems in nursing homes of fire resistive and non-combustible construction by offering design trade-offs which recognize the increased safety to life provided by automatic sprinklers.

There can be no question that life safety will be considerably enhanced by the installation of complete automatic sprinkler protection in any nursing home of whatever construction and thus, on purely humanitarian grounds, deserves every encouragement. The economic assistance being made available to proprietors through HEW programs should overcome many obstacles to full automatic sprinkler protection and your recommendations for a progressive yet practical approach to this matter are to be commended.

Very truly yours,


Charles S. Morgan
President



UNITED STATES DEPARTMENT OF COMMERCE
National Fire Prevention and Control Administration
Washington, D.C. 20230

May 26, 1976

Mr. Alan S. Zipp, CPA
Supervisory Auditor
U. S. General Accounting Office
Room 1126
330 C Street, S.W.
Washington, D. C. 20201

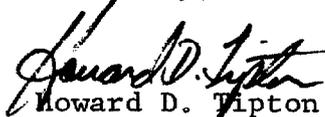
Dear Mr. Zipp:

We appreciate the opportunity to comment on the subject of fire safety in nursing homes as it relates to the GAO studies of Federal fire safety requirements for these facilities under the Medicare and Medicaid programs.

We strongly advocate that all nursing homes should be provided with automatic sprinkler systems throughout in accordance with the national consensus standard for sprinkler systems of the National Fire Protection Association (NFPA No. 13). We also urge that "trade-offs" in building construction and equipment be encouraged when automatic sprinklers are provided as specified in the Life Safety Code also produced by the National Fire Protection Association (NFPA No. 101).

The GAO is to be congratulated for its efforts.

Sincerely,


Howard D. Tipton
Administrator

OTHER NURSING HOME-RELATED REPORTSISSUED BY GAO SINCE 1972

<u>Report title</u>	<u>Number</u>	<u>Date issued</u>
Improvements Needed in the Managing and Monitoring of Patients' Funds Maintained by Skilled Nursing Facilities and Intermediate Care Facilities	MWD-76-102	3-18-76
VA Community Nursing Home Program	MWD-76-97	3-08-76
Error in Veterans Administration's Calculation of Community Nursing Home Rates in Medical District 5	MWD-76-50	10-24-75
Increased Compliance Needed with Nursing Home Health and Sanitary Standards	MWD-76-8	8-18-75
Many Medicare and Medicaid Nursing Homes Do Not Meet Federal Fire Safety Requirements	MWD-75-46	3-18-75
Need to More Consistently Reimburse Health Facilities Under Medicare and Medicaid	B-164031(4)	8-16-74
Better Use of Outpatient Services and Nursing Care Bed Facilities Could Improve Health Care Delivery to Veterans	B-167656	4-11-73
Problems in Providing Guidance to States in Establishing Rates of Payment for Nursing Home Care Under the Medicaid Program	B-164031(3)	4-19-72
Summary of Reviews of Planning, Construction, and Use of Medical Facilities at Selected Locations	B-167966	3-07-72
Drugs Provided to Elderly Persons in Nursing Homes Under the Medicaid Program	B-164031(3)	1-05-72

PRINCIPAL HEW AND HUD OFFICIALS
RESPONSIBLE FOR THE ADMINISTRATION OF
ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
<u>DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE</u>		
SECRETARY OF HEALTH, EDUCATION, AND WELFARE:		
F. David Mathews	Aug. 1975	Present
Caspar W. Weinberger	Feb. 1973	Aug. 1975
Frank C. Carlucci (acting)	Jan. 1973	Feb. 1973
Elliot L. Richardson	June 1970	Jan. 1973
Robert H. Finch	Jan. 1969	June 1970
Wilbur J. Cohen	Mar. 1968	Jan. 1969
John W. Gardner	Aug. 1965	Mar. 1968
DIRECTOR, OFFICE OF NURSING HOME AFFAIRS:		
Dr. Faye G. Abdellah	Nov. 1973	Present
Ernest Michelson (acting)	Sept. 1973	Oct. 1973
SPECIAL ASSISTANT FOR NURSING HOME AFFAIRS:		
Marie Callender	Nov. 1971	Aug. 1973
ADMINISTRATOR, SOCIAL AND REHABILITATION SERVICE:		
Don I. Wortman (acting)	Jan. 1976	Present
John A. Svahn (acting)	June 1975	Jan. 1976
James S. Dwight, Jr.	June 1973	June 1975
Francis D. DeGeorge (acting)	May 1973	June 1973
Philip J. Rutledge (acting)	Feb. 1973	May 1973
John D. Twiname	Mar. 1970	Feb. 1973
Mary E. Switzer	Aug. 1967	Mar. 1970
COMMISSIONER, MEDICAL SERVICES ADMINISTRATION:		
Dr. Keith Weikel	July 1974	Present
Howard N. Newman	Feb. 1970	July 1974
Thomas Laughlin, Jr. (acting)	Aug. 1969	Feb. 1970
Dr. Francis L. Land	Nov. 1966	Aug. 1969

	<u>Tenure of office</u>	
	<u>From</u>	<u>To</u>
<u>DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE (con't.)</u>		
COMMISSIONER, SOCIAL SECURITY ADMINISTRATION:		
James B. Cardwell	Sept. 1973	Present
Arthur E. Hess (acting)	Mar. 1973	Sept. 1973
Robert M. Ball	Apr. 1962	Mar. 1973
DIRECTOR, BUREAU OF HEALTH INSURANCE:		
Thomas M. Tierney	Apr. 1967	Present
Arthur E. Hess	July 1965	Apr. 1967
<u>DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT</u>		
SECRETARY, HOUSING AND URBAN DEVELOPMENT:		
Carla A. Hills	Mar. 1975	Present
James T. Lynn	Feb. 1973	Feb. 1975
ASSISTANT SECRETARY FOR HOUSING PRODUCTION AND MORTGAGE CREDIT AND FEDERAL HOUSING ADMINISTRATION COMMISSIONER:		
David S. Cook	Aug. 1975	Present
David DeWilde (acting)	Nov. 1974	Aug. 1975
Sheldon B. Lubar	July 1973	Nov. 1974

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